APPLICATION FOR GRANT OF TOR

OF

Kalyanpur Limestone Mine (Lease Area 40.45 Ha)

Proposed Production Rate – **200000 MTPA**

AT

Village Kalyanpur,

District Rohatas, BIhar.

FOR

Kalyanpur Cement Ltd.

At

P.O. Banjari

District- Rohtas, Bihar

Prepared By

Environmental Consultant

M/s Perfact Enviro Solutions Pvt Ltd

(NABET Registered vide list of accredited consultants organizations
SI No. 115, Rev. 33 (August 5th, 2015)
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Executive Summary

The proposal is for obtaining Environment clearance which is mandatory at the time of renewal for any lease. The present proposal is for Limestone mine situated in village Kalyanpur, District Rohtas in Bihar. In year 1952 Kalyanpur lime & cement works. (Now known as Kalyanpur Cement Ltd) allotted a lease of 40.45 Ha in village Kalyanpur district Rohtas in state Bihar for 20 years (1.04.1952 to 31.03.1972).

In year 1972 they have applied for the 1St renewal of the lease area (40.45ha) for 20 years, and was granted 01-04-1972 for 20 years(1972-92)

In year 1992 they have again applied for the 2nd renewal of the lease area (40.45 ha) for 20 years, and was granted for year (1992-2012)

Now the lessee has filled for 3rd renewal for year 2012-2032, which is pending with the state government.

Total proposed production of Limestone from the mine will be 200000 MTPA and the waste generation (comprising of Top soil and Shale) will be Waste Generation (max) –239482.33 MTPA and 63158 MTPA (intercalated waste). Kalyanpur Cement Ltd has engaged M/s Perfact Enviro Solutions Private Ltd., New Delhi, for the preparation of EIA/EMP report.

The total production from Kalyanpur Limestone mine in 2nd renewal period is 57800 Tones. The yearly production was within permitted quantity as per mining plan.

In all 83 persons will be directly employed, Besides substantial amount of indirect employment will be generated in the form of dhabas, transporters etc. which will improve the economic conditions of the area.

Location details

The lease area falls in Survey of India Toposheet No. No. 63P/14(part) and 72 D/2 (Part) with Latitude 24^0 39’57.41” to 24^{0}40’28.39” N and Longitude 83^0 59’12.09” to 83^{0}59’41.08” E . The lease area is in village Kalyanpur District- Rohtas, in Bihar state.

The lease area is situated at a distance 0.5 km East from the road connecting Dehri On Sone – Nauhatta Road. The nearest railway station is Nabi Nagar Road R.S. at a distance of 10.08 Km E.

Magnitude of Operations & Extent of Mechanization:

Working for limestone is done by adopting mechanized opencast method. It is proposed to produce a maximum of 200000 MTPA Lime Stone. Total waste generation including shale will be 239482.33 MTPA and 63158 MTPA (intercalated waste). Ore to OB ratio is estimated at 1:1.51 It will be a mechanized mine with deep hole drilling-blasting and loading through excavators to tipper. Apart from these equipments water tanker will be provided for sprinkling.

Raw Materials required:

Total of 43 KLD of water will be required, out of which 3 KLD will be utilized for drinking & domestic purposes, 25 KLD will be utilized for mining & allied activities including dust suppression, and 15 KLD for plantation.

Geology and Reserves:

The Limestone of lease hold area forms the part of Rohtas Stage of Semri series belonging to lower Vindhyan age. The carbonate formations occur in the form of alternate bands of limestone and shale and are exposed intermittently along the hills slopes below the Kaimur scarp of quartzite and sandstone. The formation bears general strike of E-Q and dip gently at $5^0 – 20^0$ into the hill. The formation has been effected by structural disturbances resulting in local folding, joints and fissure patterns of varied nature.The total mineable reserves are of the order of **1015563 MT** tonnes

The average grade of limestone is having CaO +33.81%.

Proposed Production & life of mine:

The proposed annual production will be @200000 MTPA Lime Stone and life of mine with present proved reserve established to about 6 years. However, further exploration in future is expected to establish additional reserves which may enhance the mine life.

Waste Generation and Disposal: Yes the proposed annual generation of Waste will be @ 239482.33 MTPA and 63158 MTPA (intercalated waste). The entire overburden and waste will be dump at the dumping yard shown on the development plan.

Site Analysis:

Connectivity: The lease area is situated at a distance 0.5 km from Dehri On Sone – Nauhatta Road .The nearest railway station at a distance of 10.08 Km E from mine is Nabi Nagar Road railway station. The nearest airport is at a distance of 56.76 Km is Bhabua regional Airport.

Land Form, Land use and Land ownership:

The land is private waste land. It is non-forest, non-agricultural. The consent of land owners of the land by Kalyanpur Cement Ltd was obtained in 1952 & the mine is running under operation since that time.

Topography:

Kalyanpur area is located in Kaimur Plateau which bears an elevation of about 58 mtrs and occupies western part of the area. Sone river valley bears an average elevation 26 mtrs and occupies eastern part of the area.

Existing land use pattern:

The lease land is an non forest and non- agriculture land. The description of the land is a s follows-

D E S C R I P T I O N	**AREA IN HECTARES**
Quarries	3.04
Road	1.52
Infrastructure (Colony & Plant area)	28.08
TOTAL :	**32.64**
Balance area not in use	**7.81**
Total Lease area	**40.45**

Infrastructure: At present the infrastructure available in the mine area are Plant, colony, service roads, workshop building, , canteen. The nearest road is at distance of 0.5 Km. in East. Nabi Nagar Road railway station is 10.08 Km E. Nearest Bhabua regional Airport -56.76 Km.

Climatic data from secondary sources:

The climate in the study area is warm and temperate. The average temperature of the area is 25.3^0 and the average annual rainfall is 1140.8 mm. May is the warmest month of the year and January is the coldest month. The temperature in May averages 30.9 °C.

Social Infrastructure:

The study area of buffer zone is having social infrastructure facilities like hospital, schools, electricity, potable water, transport facilities, post & communication etc. These facilities have been strengthened as CSR activities and the reachable distances to facilities of social infrastructure have been reduced.

Planning Brief

It is an opencast mechanized mining and the salient features are as below.

a)Mechanized open cast mining with drilling & blasting will be undertaken with the help of Excavator /loader and dumper.

b)Bench height will be kept at Less than 5 m & working width will be about 20m.

c)The maximum strength of workers will be 83 persons. Most of the employees will be from local area.

d) The plantation will be made within and outside the lease for improving the environment.

e) The company is involved in CSR activities like running of school, hospital, sports and other cultural activities.

Proposed Infrastructure:

Under the Corporate Social Responsibility, lessee will continue to provide infrastructure support to nearby schools and other community needs

Green belt is proposed to be developed in safety zone and plantation will be carried out. Besides this, it is also proposed that a plantation drive in the surrounding will be undertaken with the total involvement of community, which is expected to give better survival rates.

The main drinking water requirement will be of mine workers. The proposed direct strength is 83. Besides there will be indirect employment to about 50 persons. Daily domestic and drinking water requirement will be about 3 KLD. The drinking water will be made available from the plant of the company.

Project Schedule & Cost Estimates.

The total cost of the project is 560.50 Lakh

Analysis of proposal (Final Recommendations):

The project is proposed in the barren land. It will be captive mine for its cement plant. It will provide direct employment to 83 persons, besides indirect employment for about 50 persons. which will be mostly locals. Further, the share of indirect employment will likely increase the purchasing power, dhabas and retail shops etc. is largely shared by local residents. The most important aspect of the project is the land under mining is almost barren thus not creating a negative impact on the livelihood of residents. Furthermore, taxes are earned by the state government in the form of royalty.

PRE FEASIBILITY REPORT

2. Introduction of the project/ Background information

Kalyanpur mine is a limestone mine having area 40.45Ha. It is owned by Kalyanpur lime & cement work (now known as Kalyanpur Cement ltd).

In the year 1952 an area of 40.45 ha was granted as mining lease for 20 years (from (1-4-1952 to 31-03-1972) in favour of Kalyanpur lime & cement works. (Now known as Kalyanpur Cement Ltd). In 1972 company applied for the **1st renewal** of the mine which was granted on 01-04-1972 for 20 years (from 1-04-1972 to 31-3-1992) vide Bihar Government's Letter No. B/M3-101/72/4788 dated 17-7-72. Again the company has applied for the **2nd renewal** for 20 years (from 1-04-1992 to 31-03-2011). The Central Government issued a final order no.337/91 dated 31-12-91 vide their letter no.2/BIH/22/91 Mines 5 dated 31.12.91 for renewal of lease. The application for **3rd renewal** of the lease has been filed by the lessee on 18-03-2011 for the period of 20 years from (1-04-2012 to 31-03-2032) which is pending with the state govt. However as per the latest amendment in the MMDR act 1952 the captive mine leases have been allowed to operate 50 years from the date of the original grant of the mining lease or year 2030 whichever is later. In view of Present Act mining lease of Kalyanpur cement has been automatically renewed upto 2030.

Total production of Limestone from mine will be (max.): 200000 MTPA. **Annexure-1 Land Papers**

Kalyanpur Cements Limited has engaged M/s Perfact Enviro Solutions Private Ltd., New Delhi, for the preparation of Environment Impact Assessment study and Environmental Management Plan

Brief description and nature of the project

Kalyanpur Cements Limited now proposes to apply for the environment Clearance of the Kalyanpur Lime stone mine of 40.45 Ha at MoEF.

DETAILS OF LIMESTONE MINE ARE GIVEN BELOW

Topography and Drainage-

Kalyanpur area is located in Kaimur Plateau which bears an elevation of about 58 mtrs and occupies western part of the area. Sone river valley bears an average elevation 26 mtrs and occupies eastern part of the area. The upper plateau has its drain agent wards the East by same seasonal drains and streams. Sone river valley is 2 kms away towards Eastern side.

Regional Geology

The Limestone of lease hold area forms the part of Rohtas Stage of Semri series belonging to lower Vindhyan age. The carbonate formations occur in the form of alternate bands of limestone and shale and are exposed intermittently along the hills slopes below the Kaimur scarp of quartzite and sandstone. The Geological sequence of the region is as follows:-

Upper Vindhyan (Kaimur Series)		Scarp Sandstone & Quartzite
		Bijaygarh Shale
		Lower sandstone
----------Unconformity----------		
Lower Vindhyan (Semri Series)	Rohtas	Limestone poorely developed
		Upper Shale
		Nodular limestone and shale
		Limestone interbedded with shale
		Sandstone and shale
----------Conglomerate----------		
Lower Vindhyan (Semri Series)	Khenjua Stage	Gluconite Sandstone and shale
		Fawn Limestone
		Olive shale

Local Geology:

The Kalyanpur lease area belongs to Vindhyan System, which are developed from Ramdihara-on-Sone in East to Jarodag in UP/Bihar border in West and extending further forwards Mirzapur District of UP. Jharkhand/Bihar State boundry is 3.93Km SE of the mining lease. The area is bounded by latitude 24^{o} 35’ 11.27” to 24^{o} 35’ 28.68” N and longitude of 83^{o} 59’ 19.81” to 83^{o} 59’ 37.01”E as per the topo sheet No. 63P/14 and 72 D/2. Drainage is from North East to South West i.e. from Hill to river side seasonal drains and few seasonal streams are present.

Lithologically this area consists of alternate layers of limestone and shale covered by gritty soil. Denudation is sloping almost from West to East.

The General strike direction of the area is N 24^0 E to S 24^0 W and varies from $5^0 – 12^0$ in W 24^0 N direction. The formation has been effected by structural disturbances resulting in local folding. Joints and fissure patterns are of varied nature. Rocks are sedimentary in nature and were formed in Precambrian ages.

Exploration work already carried out

The prospecting operation over 40.45 hectares consisted of following broad activities:

1. Topographic Survey
2. Surface Geological Mapping
3. Surface Sampling and Analysis
4. Drilling, Sampling & Analysis
5. Reserve Estimation

Based on the above study and information collected from the area, the Geological plan is prepared on a Scale of 1:2000 with 2 m contour.

The ML area of Kalyanpur was covered by topographical survey on the scale 1:1000 at a contour interval of 2 m.

Total no of 12 boreholes were drilled in lease area with the help of Diamond core Drilling. Total depth of drilling was 111m.

Estimation of Reserves:

RESERVES AND RESOURCES ESTIMATED ON 01.04.2015 FOR LIMESTONE

Classification	Code	Quantity in MT	Average Grade
Total Mineral Resources (A+B)		**15766728**	**Cao- +33.81%**
A. Mineral Reserve			
(1) Proved Mineral Reserve	**111**	**1128403**	**Cao- 44.71%**
(2) Probable Mineral Reserve	**122**	**----------**	**----------**
B. Remaining Resources			
(1) Feasibility Mineral Resource	**211**	**14638325**	**Cao- +33.81%**

(2) Pre-feasibility Mineral Resource	**221**	**----------**	**----------**
Pre-feasibility Mineral Resource	**222**	**----------**	**----------**
(3) Measured Mineral Resource	**331**	**----------**	**----------**
(4) Indicated Mineral Resource	**332**	**----------**	**----------**
(5) Inferred Mineral Resource	**333**	**----------**	**----------**
(6) Reconnaissance Mineral Resource	**334**	**----------**	**----------**

The average grade of limestone is as follows.

Constituents	**Compositions %**
SiO2	9.03
Al2O3	2.98
Fe2O3	1.18
CaO	44.71
MgO	2.65
LOI	40.62

Life of mine: The proposed annual production will be @200000 MTPA Lime Stone and life of mine with present proved reserve(1015563 MT) is estimated at about 6 years. However, further exploration in future is expected to establish additional reserves which may enhance the mine life.

Need of the project

The limestone being the main raw material for manufacturing of cement is always in demand in a developing country like ours. The existence of project will cater the needs of cement production. The mine is captive mine of Kalyanpur cement Plant.

Demand-Supply Gap:

8 to 10 % growth in the consumption of cement is taking place in the country every year; therefore there will be always demand of limestone in the country. The mine under reference is a captive mine of M/s Kalyanpur Cements Limited.

Imports vs. Indigenous production/ Export possibility-

It is the captive lime stone mine to the M/s Kalyanpur Cements Limited. Limestone will be supplied directly to cement plant. Therefore the mine is for indigenous production and no import is being made. There are no chances of export either.

Employment Generation

In all 83 persons will be directly employed, Besides 50 persons are expected to get indirect employment in the form of dhabas, servicing etc. which will improve the economic conditions of the area.

Yearly Production data from 1997-98 to 2014-15

Production from the mine is given as under.

Year	Achievement of Limestone Production in Tonnes
1997-98	49453.2331
1998-99	49146.88
1999-00	39638.65
2000-01	32961.10768
2001-02	31723.68
2002-03	22887.38
2003-04	3638.05
2004-05	8520.2
2005-06	664.1
2006-07	1319.5
2007-08	2620.15
2008-09	Lapse period
2009-10	X
2010-11	X
2011-12	X
2012-13	X
2013-14	X
2014-15	X

3. Project Description

(i) Type of Project including interlinked and interdependent project, if any.:

This is a mining project of limestone mine with opencast mechanized mining. This is a captive mine of cement plant. The pre-existing Kalyanpur Limestone mine is of the area of 40.45 Ha.

(ii) Interlinked Projects:

This is a captive limestone mine to the M/s Kalyanpur Cements Limited established in 1946. cement plant situated within the lease area at a distance of 500m from the active mining area.

(iii) Lease Details:

Name of owner: M/s Kalyanpur Cements Limited

Address: At & P.O. Banjari,

District : Rohtas

State : Bihar

Pin : 821303

Phone : 06188-233055

Email : sanjaysingh@kalyanpur.com

Fax : 06188-233242

IBM Registration No**:** IBM/209/2011

Lease area: 40.45 ha.

S.No.	Particulars	Details of area
2	District and State	Rohtas, Bihar
3	Taluka	Rohtas
4	Village	Kalyanpur
5	Lease Area (hectares)	40.45Ha
	Topo- sheet No.	No. 63P/14(part) and 72 D/2 (Part)
	Latitude	24º39'57.41" to 24º40'28.39"N
	Longitude	83º 59' 12.09" to 83º 59' 41.08"E
6	Whether the area is recorded to be in forest (please specify whether protected, reserved etc.)	Nil
7	Ownership / Occupancy	Private Non Forest land
8	Existence of public road / railway line/air port, if any nearby and approximate distance	Dehri On Sone – Nauhatta Road at 0.5Km Nabi Nagar Road railway station- 10.08 Km E Nearest Bhabua regional Airport 56.76 Km Patna- 149.23 Km
9	Land Use Pattern (Forest, Agricultural, Grazing, Barren etc.)	Rocky Barren Land
10	Interstate Boundary	Jharkhand – 3. 93 KM SE
11	Eco-sensitive area	Sone river- 2 Km Eastern side
12	Seismicity	Bihar lies in Seismic Zone VI

Date of grant: Yet to be renewed. However as per the latest amendment in the MMDR act 1952 the captive mine leases have been allowed to operate 50 years from the date of the grant of the mining lease or year 2030 whichever is later. In view this present mining lease of Kalyanpur cement has been automatically renewed to 2030.

(iv) Location deatails:

There is no public road or railway line within the M.L area. The lease area is situated at a distance 0.5 km from Dehri on Sone – Nauhatta Road. Nearest Nabi Nagar railway station-10.08 Km E. The nearest airport at Bhabua at 56.76 Km and Patna at about 149.23 kms. The location map is given in **Plate-1** and **Plate-2** 10km radius map.

Kalyanpur area is located in Kaimur Plateau which bears an elevation of about 58 mtrs and occupies western part of the area. Sone river valley bears an average elevation 26 mtrs and occupies eastern part of the area.The upper plateau has its drain agent wards the East by same seasonal drains and streams. Sone river valley is 2 kms away towards Eastern side.

Details of alternative sites:

This is a site specific project and it is a captive mine for M/s Kalyanpur Cements Limited.

(vi) Size or Magnitude of Operations:

Working for limestone is done by adopting mechanized opencast method. It is proposed to produce a maximum of 200000 MTPA of Lime stone. For mining this quantity of limestone 239482.33 MTPA O.B. and 63158 MTPA (intercalated waste) total 302640.33MT will be removed per year. The OB and waste will be dumped in earmarked area loaded at 0.3 Km away from the active mining area.

Salient Features of the Mode of Working:

- Mechanized open cast mining will be undertaken with the help of Excavator /loader and dumper.

- Bench height will be 5 m.
- The ultimate width will not be less than bench height, however, working bench will have a width 20 m.

- Drilling& blasting will be taken up. Excavator and dumpers/trucks combination will be used for removal of excavated material

(vii) Project description with process details (a schematic diagram/flow chart showing the project layout, components of the project etc. should be given)

The mine will be worked by Mechanized Opencast Method of working. Heavy earth moving machinery in conjunction with deep hole drilling and blasting will be utilized for the mining. The height of the bench will be 5 Meters and width of the bench will be about 20m.

The blast holes of 88 mm dia will be drilled using hydraulic drills. The blast holes will be drilled in staggered pattern keeping burden of 2.0 Meters and spacing of 2.5 M.

The blast holes will be charged with ANFO/slurry explosives/SME along with prime charges. Almost 30 % of blast hole depth will be stemmed for effective blasting and to reduce noise and fly rock. The explosives will be detonated by using non – electric detonators (NONEL). This enables bottom initiation in the holes and with this technique each hole is blasted separately by providing delay in each hole. The bottom initiation and delay in each hole will not only control the throw of the blast but also reduce the ground vibration and noise pollution.

(viii) Extent of Mechanization and List of Equipments.

It will be a mechanized mine with deep hole drilling-blasting and loading through excavators to tipper. Apart from these equipments water tanker will be provided for sprinkling. The list of equipment is given below;

List of Equipments:

S. No	Type of Machine	No	Size/ capacity	Make	Motive power	H.P
1	Excavators	6	0.9 cu. m	Komatsu PC200	Diesel	124
2	Poclain	2		L&T	Diesel	
3	Tippers	9	10 MT	Ashok Leyland	Diesel	98.5
4	Diesel Generator	3		EICHER		20KVA

Description	Quantity	Capacity
Explosive Van	1	10 MT
Water tanker	1	5000 liters
Tractor with trailer	1	-
Jip crane cum fork lift	1	-
Portable welding machine	1	-
Ambulance van	1	-
Field Service van	1	-
Jeep	1	-

(ix) Raw Materials required along with estimated quantity: For extraction of raw material from nature important inputs required for excavation of desired quantity of mineral are discussed.

(x) Market and Mode of transport:

Since the mine is a captive mine of Kalyanpur Cement Company hence market of Limestone is assured. The cement plant is located within the lease area within 500m distance from the active mining.

It is a captive mine of M/s Kalyanpur Cements Limited. It requires namely fuel oil, explosives & water. Water requirement for drinking & domestic use, mining activities including sprinkling, &plantation use will be 3 KLD, 25KLD, &15KLD respectively.

S.No.	Raw Material	Quantity
1.	Oil	1362 Lit/day
2.	Explosives	549kg/day

Limestone mineral from the mine will be optimally mined and will be utilized for cement production. High grade & low grade benches will be mined to produce acceptable grade of limestone. Thus conservation aspect of mineral will be of paramount importance.

Waste Generation: Total waste will be 302640 MTPA i.e. OB 239482.33 MTPA and 63158 MTPA (intercalated waste). A dump yard is already present in the lease area. OB and waste will be dumped in designated dump. Once mining is over this OB and waste will be backfilled into the mine.

4. Site Analysis:

(i) Connectivity:

There is no public road or railway line within the M.L area. The lease area is situated at a distance of 0.5 km from Dehri on Sone – Nauhatta Road . Nearest Nabi Nagar railway station- 10.08 Km E . The nearest airport at Bhabua at 56.76 Km and Patna at about 149.23 kms

(ii) Land Form, Land use and Land ownership:

The land is private waste land. It is non-forest, non-agricultural. Consent for mining from the land owners of the land have already been obtained.

(iii) Topography along with map:

Kalyanpur area is located in Kaimur Plateau which bears an elevation of about 58 mtrs and occupies western part of the area. Sone river valley bears an average elevation 26 mtrs and occupies eastern part of the area.

(iv) Existing land use pattern:

Land use pattern of the lease is given below-

D E S C R I P T I O N	AREA IN HECTARES
Quarries	3.04
Road	1.52
Infrastructure (Colony & Plant area)	28.08
TOTAL :	**32.64**
Balance area not in use	**7.81**
Total Lease area	**40.45**

(v) Existing Infrastructure:

At present the infrastructure available in the mine area are Plant, service roads, workshop building, canteen within an area of 28.08 ha within lease.

(vi) Soil Classification:

In mine area the thickness of soil is 2m which is considered as waste.

(vii) Climatic data from secondary sources:

The climate in Kalyanpur is warm and temperate. The temperature here averages 25.3 °C. The average annual rainfall is 1140.8 mm. May is the warmest month of the year. The temperature in May averages 30.9 °C. At 16.6 °C on average, January is the coldest month of the year.

(viii) Social Infrastructure:

Barepur High school which is 8.1 Km from the lease area.

Medical Facilities:

There is a primary health care center inside the lease area and PMCH Hospital which is 14.90 Kms from the lease area and Mataa Devrani Hospital which is 40.9 Kms from the lease area.

Electric Power Availability

Most of the villages (71%) in the study area had access to power supply. Based on the survey made in the study area, facilities have further improved now.

Potable Water

All the villages in the study area have water supply for domestic purposes. The wells, tanks and Hand-pumps are the dominant sources of drinking water throughout the study area. Some villages have tapped water facility. Based on the survey made in the study area, facilities have further improved now. Sone river valley is present at a distance of 2Km E. On request from villagers tanker with drinking water is also provided by company.

Transport Facilities

Transport facilities are available within 10 Km. At present, transport facilities in the study area have been improved significantly. Dehri On Sone – Nauhatta Road is at a distance of 0.5 km.

Post and Telegraph Facilities

The nearest post office from the study area is Dehri On Sone Post office- 30.1 NKm approx from the lease site. The cement plant and mine have telephone facilities. Villages on the main road have public phone facilities. . Based on the survey made in the study area, facilities have further improved now at a distance of less than 5 Km.

5. Planning Brief

It is an opencast mechanized mining and the salient features are as below.

- Mechanized open cast mining will be undertaken with the help of Excavator /loader and dumper.
- Bench height will be kept 5m.
- The working bench will have a width around 20 m.
- Drilling blasting will be taken up on a tested designed pattern for optimum utility.
- Excavator and dumpers/trucks combination will be used for removal of excavated material.
- The maximum strength of workers will be 83 persons. Most of the employees will be from local area.
- Mined out Limestone will be transported to the cement plant situated within 500m from the mining area.

- Over burden and under burden Shale will be dumped in designated stockyard and later the same will be backfilled in the mined out area.
- The plantation will be done within and outside the lease for improving the environment.
- The company is involved in CSR activities like running of school, hospital, sports and other cultural activities.
- Limestone from this mine will be utilized to produce cement which is of great importance for infrastructure development of the state.

6. Proposed Infrastructure:

Physical Infrastructure:

No additional significant infrastructure is expected due to proposed mining activity. However under the Corporate Social Responsibility, lessee will continue to provide infrastructure support to nearby schools and other community needs

Green Belt / Afforestation:

Green belt is proposed to be developed in and around the lease area. Besides this, it is also proposed that a plantation drive in the surrounding will be undertaken with the total involvement of community, which is expected to give better survival rates.

Drinking Water Management (Source & Supply of Water):

The main drinking water requirement will be of mine workers. The daily domestic and drinking water requirement will be about 3 KLD. The drinking water is being provided from the existing water facility of the cement plant of the company within lease area.

Sewerage System:

Since only temporary toilets will be built near the mining area, there will be limited generation of the sewage waste. Waste will be disposed of by constructing soak pit of appropriate dimension.

Solid Waste Management:

The overburden which comprises of shale and top soil will be dumped into the dump yard situated 0.3 Km away within the lease area.

Power requirement:

The power required for mine is for lighting on haul road, mining lease area and office. The requirement is roughly 0.5 MW. The supply will be obtained from the existing cement plant of company..

7. Rehabilitation and resettlement (R & R Plan)

The mining area is situated in the private waste land. No residential accommodation is existing in the proposed mining area belonging to any villagers or private person. Thus no resettlement of rehabilitation is envisaged. The consent for mining from the private landowners had been obtained. The R&R plan will be implemented as per the rule laid down in National R&R Policy 2007.

8. Project Schedule & Cost Estimates.

Likely date of start of construction and likely date of completion:

The proposed mining activity will commence immediately on getting environment clearance and approval of mining plan.

Project cost along with analysis in terms of economic viability of the project:

The Total project cost of mining is about Rs.560.50Lakhs. The limestone will be dispatched directly to the company's cement plant situated within 500m from the active mining area. The operating cost of limestone is Rs 70 per tone.

9. Analysis of proposal (Final Recommendations):

The project is proposed in the barren land. It will be captive mine for its cement plant. It will provide direct employment to 83 persons. About 60% of the total employment will be given to locals. Further, the share of direct and indirect employment will likely increase the purchasing power, dhabas and retail shops etc. of the local residents. The most important aspect of the project is the land under mining is almost barren thus not creating a negative impact on the livelihood of residents. Furthermore, taxes will be earned by the state government in the form of royalty.